

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An apparatus for delivering a pharmaceutical product comprising:

a first driver element to generate acoustic energy, the first driver element ~~designed to generate generating~~ acoustic energy in pulses that are of a short duration and low frequency such that ~~the~~ a droplet of pharmaceutical product is output from a capillary wave;

~~an~~ a first acoustic lens to focus the acoustic energy generated by the first driver element; and

a delivery system to maintain the pharmaceutical product in a position to receive the acoustic energy from the first acoustic lens and cause ejection of [[a]] the droplet of pharmaceutical product.

2. (currently amended) The apparatus of claim 1 further comprising:

a source of electrical power coupled to the first driver element.

3. (currently amended) The apparatus of claim 1 wherein the first acoustic lens is a fresnel lens.

4. (currently amended) The apparatus of claim 1 wherein the first acoustic lens is a plastic lens.

5. (currently amended) The apparatus of claim 1 further comprising: a second acoustic lens to focus the energy generated by the first driver element and cause ejection of a second droplet of pharmaceutical product.

6. (currently amended) The apparatus of claim 1 further comprising: a portable energy source to provide energy to the first driver element; and a second driver element coupled to the portable energy source to provide drive signal to injectors that eject droplets of the pharmaceutical product; and

~~a second acoustic lens to focus the energy generated by the second driver element, acoustic energy from the second acoustic lens to cause ejection of a second droplet of pharmaceutical product.~~

7. (currently amended) The apparatus of claim 6 ~~further comprising wherein the second driver element comprises:~~

~~a multiplexing circuit that directs RF energy from the portable energy source to the second driver element only when energy is not provided by the portable energy source to the first driver element alternately switch groups of the ejectors on and off.~~

8. (canceled)

9. (currently amended) An apparatus for delivering a pharmaceutical product comprising:

a driver element to generate acoustic energy, the driver element designed to generate acoustic energy in pulses that are of a short duration and low ~~frequency~~ frequency such that ~~the a plurality of droplets~~ the ~~droplet~~ of pharmaceutical product is output from a capillary wave wherein the driver element is programmed to output acoustic energy at a frequency below 15 MHz;

an acoustic lens to focus the acoustic energy generated by the driver element; and

a delivery system to maintain the pharmaceutical product in a position to receive the acoustic energy from the acoustic lens and cause ejection of ~~a droplet~~ the ~~droplets~~ of pharmaceutical product.

10. (original) The apparatus of claim 9 wherein the droplets of pharmaceutical product output due to capillary action are less than 10 micrometers in diameter.

11. (currently amended) An apparatus for delivering a pharmaceutical product comprising:

a driver element to generate acoustic energy below 15Mhz and ~~thereby~~ generate a capillary wave;

an acoustic lens to focus the acoustic energy generated by the driver element; a pharmaceutical product;

a delivery system to maintain the pharmaceutical product in a position to receive the acoustic energy from the acoustic lens and cause ejection of a droplet of pharmaceutical ~~product~~ product, the delivery system including a pressurization system that controls ~~the~~ pressure of the pharmaceutical product.

12. (previously presented) The apparatus of claim 11 further comprising:
a sterilization mechanism that outputs ultraviolet energy to sterilize the acoustic lens.

13. (currently amended) The apparatus of claim 1 further comprising:
a MEMS cover to that protects the driver element from contamination when the driver element is not outputting acoustic energy.

14. (currently amended) An apparatus to output pharmaceutical product for inhalation into the respiratory system of a patient, the apparatus comprising:
a portable energy supply;
at least one transducer coupled to the portable energy supply, the at least one transducer to output acoustic energy below 15 Mhz and ~~thereby~~ generate a capillary wave ~~in the~~ pharmaceutical ~~product~~;

a plurality of lenses to receive and focus energy from the at least one transducer; and
a delivery system to maintain a reservoir of pharmaceutical product, a distance from a top surface of a lens and a surface of the reservoir of pharmaceutical product ~~is~~ being less than 150 micro meters, the reservoir of pharmaceutical product to receive energy from the plurality of lenses, the received energy to cause ejection of a plurality of droplets ~~a distance from a top surface of a lens~~.

15. (original) The apparatus of claim 14 wherein each lens in the plurality of lenses is a Fresnel lens.

16. (previously presented) The apparatus of claim 14 wherein each lens in the plurality of lenses is a plastic lens.

17. (original) The apparatus of claim 14 further comprising:

a circuit that detects a flow of air going into a patient's lungs and couples the transducer to the portable energy supply when a critical air speed is reached.

18. (canceled)

19. (previously presented) The apparatus of claim 1 wherein the delivery system includes a section for insertion into a human orifice, the section for insertion into the human orifice to increase an amount of the pharmaceutical product delivered to a patient.

20. (canceled)

21. (previously presented) The apparatus of claim 1 wherein the capillary wave is generated by relaxation of a principle mound.

22. (previously presented) The apparatus of claim 14 wherein a diameter of at least one droplet in the plurality of droplets is less than 5 micrometers.

23. (previously presented) A method of delivering pharmaceutical product comprising:

generating a pulse of acoustic energy, the pulse having a short duration and low frequency such that the pulse of acoustic energy generates capillary waves, at least one capillary wave ejecting at least one droplet of pharmaceutical product; and,

positioning the droplet near a human orifice for inhalation into a respiratory system.

24. (currently amended) The method of claim 23 wherein the at least one capillary wave is formed by the relaxation of at least one principle principal mound of pharmaceutical product.

25. (currently amended) The method of claim 24 wherein the at least one principle principal mound is generated by focusing the pulse of acoustic energy.

26. (currently amended) An apparatus comprising:
a pharmaceutical product;

a driver element to generate acoustic energy, the driver element ~~designed to generate generating~~ acoustic energy in pulses that are of a short duration and low frequency such that ~~the~~ a droplet of the pharmaceutical product is output from a capillary wave;

an acoustic lens to focus the acoustic energy generated by the driver element; and

a delivery system to maintain the pharmaceutical product in a position to receive the acoustic energy from the acoustic lens and cause ejection of [[a]] ~~the~~ droplet of the pharmaceutical product.